1953

Effie Cole v. Fred J. Kloepfer, Elden J. Kloepfer et al : Reply Brief of Appellant

Utah Supreme Court

Harvey A. Sjostrom; Attorney for Plaintiff and Appellant;

IN THE SUPREME COURT

of the State of Utah

FILED

JAN 14 1953

Clerk, Supreme Court, Utah

Effie Cole,

Plaintiff & Appellant,

-vs-

Fred J. Kloepfer, Elden J. Kloepfer, and Ronald V. Butters, doing business in the Firm name of Kloepfer Sand & Gravel Co.,

Defendants & Respondents.

Case No. 7897

REPLY BRIEF OF APPELLANT

Appeal from the District Court of the First Judicial District of the State of Utah, in and for the County of Cache.

Honorable Lewis Jones, District Judge

Respectfully submitted,

Harvey A. Sjostrom,

Attorney for Appellant.

TABLE OF CONTENTS

INDEX OF AUTHORITIES AND TEXT CITED

IN THE SUPREME COURT

of the State of Utah

Effie Cole, Plaintiff & Appellant, -vs- Fred J.Kloepfer,Elden J. Kloepfer,and Ronald V. Butters,doing business in the Firm name of Kloepfer Sand & Gravel Co., Defendants & Respondents.	Case No. 7897

REPLY BRIEF OF APPELLANT

BURDEN OF PROOF

We have already made our statement of facts, but in respondents statement of facts they assert that the burden of proving that no permit was taken out was on appellant. In this we believe they are in error under the facts of this case.

"A party is not required to prove negative allegations which are merely necessary as pleading but constitute no part of his case." 22 C.J. pp. 71.

"Hence it is very generally held that where the party who has not the general burden of proof possesses positive and complete knowledge concerning the existence of facts which the party having that burden is called upon to negative, or where for any reason the evidence to prove a fact is chiefly, if not entirely within his control the burden rests on him to produce it." 22 C.J. pp.81 sec. 24. To the same effect is section 140, 20 Am.Jr. on evidence. See also State v. O-Dell 118 N. E. 529.

Point 1.

AS TO CONTRIBUTORY NEGLIGENCE

We believe we have sufficiently covered Point 1 in Appellant's brief as to the Court ruling that plaintiff was guilty of contributory negligence as a matter of law and think said brief is a complete answer to respondents contention that the Court ruled rightly as contained in their argument under Point 1 of respondents brief and therefore we say no more on the matter.

Point 2.

AS TO DEFENDANTS DUTY AND NEGLIGENCE

Under Point 2 the respondent asserts that "the record is devoid of any duty owing by the defendants to the plaintiff."

Counsel under this point say it was the duty of the City of Logan to maintain the sidewalks. That may or may not be true as a general fact, but under the pleadings and proof of this case it was the respondent that created this unsafe and hazardous condition of sidewalk and they cannot now be heard to say that it was the sole duty of Logan City to put it back in repair and escape responsibility for the injuries sustained by the appellant. The defendants cannot shift their responsibility, 38 Am. Jr. 655. They cite no authority for this unique assertion in opposition to the authority cited by appellant in former brief. It may further be said that the pleadings of plaintiff in describing the condition created by defendants certainly shows a

public nuisance and the proof sustains it as has heretofore been shown.

Counsel in their brief say something about there being a settlement of earth. It was only a trifle, but even though it was substantial it was a probable result of their negligent backfilling and does not excuse them. It was a public nuisance from the first and continued so to time of accident. In Lamereaux v. Lula, 44 N. E. (2nd) 789, it held that where water was artificially collected upon defendants premises, and then discharged up a public way where it froze, a public nuisance was created and for which defendant was liable.

As to the Court finding that the condition created by respondents did not create a public nuisance as a matter of law it goes without saying that this was, to say the least a question for the jury and not the judge of the Court. But even the Court's conclusion that the condition did not create a nuisance is contradicted by its own finding

of fact as has been pointed out in former brief. It seems to us it was a public nuisance as a matter of law created by the defendants. Not only is this true because of the condition actually created but it was also in violation of law, no permit having been had. McGowan v. City of Burns 137 P. (2) 994. But in any case it was a jury question as all questions of fact are and not one for the Court to decide, for to take a most charitable view of the facts in favor of the respondent it was an issue on which reasonable men might differ.

CONCLUSION

In conclusion we reiterate that this Court should reverse the lower Court and send the cause back for a new trial.

Respectfully submitted,

Harvey A. Sjostrom,

Attorney for Appellant.

Case No. 7898

IN THE SUPREME COURT

of the

STATE OF UTAH

LITTLE COTTONWOOD WATER COMPANY, a corporation, and SALT LAKE CITY, a municipal corporation,

Plaintiffs and Appellants,

— vs. —

SANDY CITY, a municipal corporation, MIDVALE CITY, a municipal corporation, and JOSEPH M. TRACY, State Engineer of the State of Utah,

Defendants and Respondents.

BRIEF OF APPELLANTS

E. R. CHRISTENSEN,
City Attorney
HOMER HOLMGREN,
A. PRATT KESLER,
Assistant City Attorneys
Attorneys for Appellants.

TABLE OF CONTENTS

TABLE OF CONTENTS—(*Continued*)

TABLE OF CASES CITED

TEXTS CITED

STATUTES CITED

IN THE SUPREME COURT
of the
STATE OF UTAH

LITTLE COTTONWOOD WATER COMPANY, a corporation, and SALT LAKE CITY, a municipal corporation,
Plaintiffs and Appellants,

— vs. —

SANDY CITY, a municipal corporation, MIDVALE CITY, a municipal corporation, and JOSEPH M. TRACY, State Engineer of the State of Utah,
Defendants and Respondents.

Case No. 7898

BRIEF OF APPELLANTS

STATEMENT OF THE CASE

On April 18, 1941, defendants, Midvale City and Sandy City, jointly filed with the Utah State Engineer an application to appropriate water for domestic and municipal purposes from the underground water near Little Cottonwood Creek in Salt Lake County, Utah. The water was to be taken by two 12-inch wells, 61 and 75 feet deep respectively. The plaintiffs herein duly protested such application. A decision was not rendered until May

19, 1950, when the application was conditionally approved. The approval reads as follows:

> "It is considered that there is unappropriated water in the source that may be diverted by the applicant during that period of time when all the flow of Little Cottonwood Creek is diverted through the Murray City pipe line and during the time when there is more water available in Little Cottonwood creek than is required to satisfy existing rights. Application No. 14234 is, therefore, approved, subject to prior rights and subject to the condition that water be diverted under this application only during the periods set forth above."

The Plaintiffs appealed from the decision of the State Engineer to the District Court of Salt Lake County. That court affirmed the State Engineer's approval upon the same conditions. The application is in evidence as Exhibit 8. The protest of Salt Lake City is Exhibit 14. The defendants' answer to protest of Little Cottonwood Water Company is Exhibit H.

STATEMENT OF FACTS

Since the testimony refers to several named places, and to explain the geography, we desire first to describe the area involved. As Little Cottonwood Creek approaches the mouth of the canyon it encounters a dam erected across it by Murray City at the intake to its power pipeline to furnish water to run its electric power plant located approximately two and one-fourth miles down stream. When the flow of the creek is reduced

to thirty second feet, or less, the entire surface flow is diverted from the creek into the pipeline at the dam. The tail race of the Whitmore Oxygen plant empties into the creek just above the dam. The first ditch for the conveyance of water from the creek for irrigation and culinary use, known as the South Despain Ditch, takes off from the south side of the creek west of a bridge about 5100 feet below the Murray dam, and runs nearly straight west therefrom. Beginning about 200 feet west of the head of the South Despain Ditch, and extending westerly approximately 1300 feet, with a width north and south of approximately 300 feet, is the Despain Spring area.

Sometime prior to 1940 Midvale and Sandy each drilled a well in the Despain Spring area a short distance, about 75 feet and 50 feet, respectively, south of the creek, some 320 feet apart. Both of these wells are upstream from the head of the North Despain Ditch, which ditch takes off from the north side of the creek toward the west end of the Despain Spring area. A very short distance west from the head of said ditch is what is referred to as the "swinging bridge," which is a suspension foot bridge across the creek. In times past drain pipes had been laid in this spring area along both sides of the creek to gather clear water into a pipeline for use by Sandy and Midvale as part of their decreed rights. Some distance west of the Despain Spring area Salt Lake City constructed a pipeline running south from the Murray City pipeline across the creek and emptying into the South Despain Ditch to deliver water to that ditch ac-

cording to its decreed rights. To the west and down stream from this pipeline is a rocky gorge.

Lying to the south of the creek and extending in a north and south direction some 3000 feet west of the Despain Spring area is another spring area known as Beaver Pond Springs. Westerly from these springs is the head of the Sandy Ditch, which takes off from the south side of the creek and runs to what is called the Sandy tank. The Murray City power plant is located northeasterly from this tank. A pipeline, constructed by Murray City, runs from the tail race to this tank, referred to as the siphon, to furnish water to the Sandy Ditch. All of the foregoing features are shown in Exhibit I.

Mentioned in the testimony is a decree of court known as the "Morse Decree." This refers to an adjudication of all the water rights in Little Cottonwood Creek made by Judge C. W. Morse in an action in the District Court in Salt Lake County, Utah, in the case of *Union & East Jordan Irrigation Company v. Richards Irrigation Company, et al.,* case No. 4802. The judgment was filed June 15, 1910, and is in evidence as Exhibit 3. Paragraph 35 of the Findings and Decree, Exhibit 3, provides:

> "No one is entitled to any water of Little Cottonwood Creek except as he may be an owner in some of the ditches to which water is distributed, and then only as such ditch is entitled to water as herein found."

Paragraph 42 provides:

> "All persons who have any interest in the water of Little Cottonwood have been duly served and have either pleaded herein or the time to plead has elapsed; and no one has any right to such water except as specified in this decree."

In their answer (Exhibit H) to the protest filed by the plaintiff Little Cottonwood Water Company with the State Engineer protesting defendants' application here involved, the defendants alleged: "That applicants recognize in said application that all the natural flow of Little Cottonwood Creek is appropriated and that the rights therein decreed cannot be adversely affected by this application."

The decree distributes the primary flow of the creek, 94.79 second feet, to certain ditches, paragraph 4, pages 14, 15, (Exhibit 3), including the North and South Despain Ditches. Water in excess of 94.79 second feet, up to 303.57 second feet, is called surplus water and is distributed to various ditches, par. 7, page 19, including North and South Despain Ditches. It was stipulated that of the first 2.29 second feet of primary water decreed by the Court, Midvale City has acquired 1.33 second feet; also that Midvale and Sandy have each acquired one second foot of the primary flow, making a total of 3.33 second feet owned by them of the primary flow. The two defendants applied to the State Engineer and received the right to divert their decreed creek water at six different points. The defendants have been required by a subsequent decree of Court to furnish to Granite Water Company 58

gallons per minute while the wells are pumped, such pumping having the effect of diminishing the flow of the Granite Spring, which lies some 420 feet east of the Beaver Pond Spring.

Since this proceeding constitutes a hearing de novo, the trial Court required defendants to go forward and present their evidence. We shall give a rather complete summary of the evidence submitted by both parties as the only practical way to give the Court an explanation of the problems here involved. We feel that the questions here involved are of extreme importance in the water law of this State even though the amount of water involved is small.

During the months of November and December, 1944, and January, February, March and April, 1945, A. Z. Richards, a civil engineer, on behalf of defendants conducted a series of measurements to determine the quantities of water produced naturally by the sources supplying Little Cottonwood Creek in the Despain Spring area and that produced by adding the water pumped from their wells. When the tests began, the Sandy Well had been pumping water for 15 months. Exhibit 2, prepared by Mr. Richards, shows graphically the results of these measurements. On November 21, 1944, the total yield of the Sandy well and springs was 2.28 second feet (R. 28), the well producing 1.28 second feet. On that day the Midvale Well pump was started and that added another 1.52 second feet, but the flow in the creek channel, the North Despain Ditch, and the drains on both sides of the creek diminished markedly, as shown by Exhibit 2, lines

marked by red numbers 1, 2 and 3 in red circles. The combined yield went down from one second foot to nearly .3 second feet. Likewise the flow in the creek channel went down from .4 to about .13 second feet. With both pumps running for seven days the flow of water at the swinging bridge had dropped from .39 to .15 second feet. (R. 29) The total flow of the creek channel and drains, as shown by lines 1 and 2, Exhibit 2, dropped from .74 to .23 second feet in the same seven days. The one second foot decreased to .34 second foot. (R. 30) His graph, Exhibit 2, shows that the approximate yield from all sources, including both wells, was .6 second foot more than the total flow naturally produced. From this he concluded defendants had developed a new water source of .6 second foot. (R 30, 31)

The wells were dug originally to get clear water all year when the creek water was muddy. Mr. Richards testified that the defendants knew that when the pumps were going, the water in the creek would diminish in the immediate neighborhood, and this was what resulted. But they never succeeded in drying up the creek. There was always a flow at the swinging bridge, but there was a very decided effect on the creek flow. When the wells were driven there was water all the way down so the subsurface was completely saturated. When the wells were shut down water immediately appeared in the creek. WHERE THAT REPLACING WATER CAME FROM, HE DID NOT KNOW. (R. 40)

He further testified that had the water drawn off by the wells been permitted to flow into the creek it

would have gone down to the Sandy Ditch. There was water at all times in the creek from the Despain Springs down to the Sandy Ditch. (R. 45) The amount taken out by the wells was more than would have come down to the Sandy Ditch, and all defendants claim is what they have done toward increasing the yield of the area. But he completely ignores and has no knowledge of the source of the water that must replace this additional water taken out of the creek by the pumps. He admits that the bigger the pumps the more water could be drawn. (R. 51) He also admits that water produced by the wells and that produced naturally is all from the same source, but that source does not yield as much by nature as is obtained by pumping and by nature. (R. 51) The pumps are taking part of the defendants' decreed rights and commingled with those same waters is that which they term unappropriated. He admitted you could get more water than the natural yield of most any creek by pumping to the side of it. (R. 54)

John A. Ward from the State Engineer's office, upon whose recommendation the application was approved also testified for defendants. He was satisfied there is no unappropriated water during the entire year, but felt that when the creek is dry below the Murray Dam there may be water developed from the area that does not reach the ground surface. (R. 62) His idea was as follows: The fault crosses Little Cottonwood channel below this area. If there is unappropriated water it must come from the water that normally goes into the valley and constitutes a part of the ground water and does not

come to the ground surface and become a part of the creek when the creek channel is used to convey the decreed water. (R. 63, 64) For that reason the State Engineer's office approved the application subject to these rights and set a limit of time that this apparently unappropriated water may be developed and used. By taking ground water out during the period the water is run in the creek, the only source that water can come from is from the water of the creek, to take the place of the water taken out of the ground. Therefore, defendants were not permitted to pump during the time water was running in the creek all the way from the Murray Dam, as this would in effect be taking creek water. He thus takes the position that taking water from the underground by means of the pumps when water flows in the creek past the Murray Dam would be equivalent to taking the flow of the creek. But if no water is turned into the creek at the Murray Dam, the wells will be pumping from an underground source, which water may not reach the surface before percolating through the fault into the valley underground basin, even though the evidence without dispute is that normally, when the well pumps are shut down, water rises to the surface of the creek channel above the wells and flows in the channel past the wells to the head of the Sandy Ditch and is there distributed under the decree. He concludes that the pumps are taking water that would normally go underground through the fault into the valley even though there is a noticeable effect of the pumping in the Despain area and as far west as the Granite Spring. (R. 65)

When water is turned down the creek from the Murray Dam the Despain Spring area reacts immediately. The water restores the water taken out. If the creek channel were still used to convey water in the Winter the application would have been rejected. (R. 69) He did not recommend approval of the application for the entire year because during the Spring the recharge of ground water comes from the surface stream, the surface creek water recharged the underground area. (R. 70, 71) The defendants' graph, Exhibit 2, proves that when water is flowing down the creek and you pump from the adjacent Despain area, you would be pumping water out of the creek. His position on this matter is contained in his written memo to the State Engineer as follows:

> "The applicant should not be entitled to the .6 second foot of water, however, during the period of the year when the creek is used to convey decreed water because during that period of time the pumping of these wells would, in reality, be drawing water indirectly from the creek, or the creek would immediately replace to the ground the water over and above the normal flow of the Despain Springs, that may be taken by the well pumps." (R. 208)

Orin Van Valkenburg, called by plaintiffs, the present Commissioner appointed by the District Court under the Morse Decree, testified he has distributed water under that Decree since 1947. There has never been a time when there was not measurable water flowing in the creek at the Sandy Ditch intake, which has always been

distributed under the Morse Decree. Any water in excess of the rights of the Sandy Ditch would continue on down the creek. This has occurred in times of rain or snow when the surface flow of the creek was all turned into the Murray Power line. As Court Commissioner he distributed water to Midvale and Sandy according to the Morse Decree, and the water taken by them at the wells was charged to them as part of their decreed water. Also charged to them was the water coming from the Beaver Spring, the flow at the head of the Sandy Ditch and through the siphon. Water from the wells is measured by the wier at Beaver Pond Spring box commingled with Beaver Spring water. This is above the Sandy Ditch intake, point H on Exhibit I. This amount is added to the amount of flow at point H, head of the Sandy Ditch, to get a total of the decreed rights of Sandy and Midvale. If this total does not produce the decreed rights, water is delivered to the defendants from the Murray Power Plant tail race through the siphon, which was constructed by Murray City. (R. 76-84)

Dr. Ray E. Marsell, Professor of Geology, at the University of Utah, made extensive geological examinations of the area here involved and also a test to determine the amount of interference with the surface flow in the creek channel that was caused by pumping in the wells. He first demonstrated by photos, maps and drawings the geological structure of the canyon and the nature of the unconsolidated material that covers the floor, or bed rock, of the canyon and over which the creek flows, to explain the natural occurrence and course of the water

in the talus along the creek banks and sides of the canyon and in the subsurfaces below the creek channel.

Photographs numbered I to VII, inclusive, comprising Exhibit A, (R. 86) are photographs of the canyon taken so that the one overlaps the other in a complete 360° circle. These show the great accumulations of talus and unconsolidated glacial material deposited in the canyon itself and out through the mouth of the canyon. These materials are several hundred feet thick and are like a sponge, absorbing the surface moisture and feeding it into the creek channel, and existing nearly up to Alta. (R. 92)

Exhibit B consists of plates numbered VIII, IX and X. No. VIII is a scaled drawing of photo No. III, looking up the canyon, without the vegetation. The wells here involved are situated at point A and the section at the bottom, marked A, is a geological section showing the underground conditions, showing how water percolates from the sides toward and into the creek channel through the talus. It is drawn to scale and shows the talus on each side of the creek to be from 100 feet to 250 feet thick, and 250 feet deep under the wells. Section B shows the great depth of this materials at the Beaver Pond Springs area. Plates IX and X give a comparison of the unconsolidated material in Little Cottonwood Creek and Big Cottonwood Creek.

Plate XI is an air photo of the area and Plate XII is a map identical in scale with the air photo, so each point on the air photo has an identical position on the map. The various rock formations and deposits are shown

by different colors. The position of the two wells, the North and South Despain Ditches, the Beaver Pond Springs, the Murray Dam and Murray pipeline and power plant are shown. The creek flows from above the Murray Dam down past the area here involved on unconsolidated material having a depth of as much as 300 feet. At no place does it flow on bed rock. (R. 99)

To illustrate the effect of driving a well into this unconsolidated material and drawing off the water percolating thereunder, he placed 200 C.M. of water in a beaker and added pebbles until the water level stood just at the surface of the materials. He then withdrew a quantity through a tube thrust into the materials. The water at the surface disappeared. To restore the water so taken out the same quantity must be put back in. (R. 102) This is similar to driving the wells near the creek into the unconsolidated materials and drawing out water. Since the creek flows on this permeable fill of unconsolidated material, the water fills all the interstices or pores between the rock particles. For any water to appear on the surface permanently there must be a complete saturation of the materials beneath. (R. 101) As long as the zone of saturation is penetrated and water removed it is the same as if the pumping was from within the body of water directly, the same as in the glass beaker. (R. 102)

Since the dam at the Murray Power Plant is built on unconsolidated material, the only water it traps is the surface flow. The underflow of the creek would be down many feet and would flow under and around the dam. The two wells, 65 and 75 feet in depth, do not penetrate

through the unconsolidated material. There can be no free water in the channel without the materials below being completely saturated, which saturation constitutes the underflow. (R. 104)

The manner in which the unconsolidated materials under the stream and the talus along the walls of the canyon are supplied with water and the behavior of the water in supporting the surface stream is illustrated on Plate XIII, Exhibit C. (R. 109) The surface water is in free communication with the zone of saturation, or underflow. Figure D shows these conditions at the wells. (R. 113)

The water may be divided into three zones, as illustrated by Drawings A and D on Plate XIII, Exhibit C. First, there is the free water flowing on the surface of the creek channel. Second, the water that is contained in the talus on the sides of the creek channel and down to the level of the water in the channel and from which water seeps or flows in springs into the creek channel, fed by seepage through the blocks of talus from melted snow and precipitation down to the water table, part of which is perched above the creek channel. Third, the underflow which is below the level of the water in the creek channel. (R. 114, 115) The Despain Spring area is an area of considerable underground seepage to the surface. This is so because the canyon floor flattens out in this vicinity and the underflow in the zone of saturation is forced to the surface and produces a wet zone.

The photos designated as Midvale Well No. 1 and Sandy Well No. 2 on Plate XIV show Dr. Marsell stand-

ing at the bank of the creek and show the comparative distances from the wells to the creek.

Having demonstrated the natural occurrence of water in the region here involved, showing that the water taken from underground by the defendants' wells is a part of the underflow of whatever water flows in the channel of the creek, and that any water so taken must be replaced before the water will again flow at the surface, Dr. Marsell then proceeds to show the actual interference that occurred by the pumping of these wells upon the flow of the water in the creek channel. To make this determination he placed 17 pegs in the creek channel at various places wherever there was water at the time, extending along an area about 500 feet, each peg so placed and scaled that the depth of the surface water in the channel could be measured. The exact location of these pegs is shown on Plate XV of Exhibit D. Along the line A B of that plate are found the upper, or Midvale Well, an open well called the sump, and pegs Nos. 3 and 4. The sump is lined with corrugated iron, is not in direct communication with the channel and is generally full of water, so it reflects the condition in Zone 3, the zone of saturation below the channel. (R. 117) It is about 57 feet from the creek and is 10 or 12 feet deep. The tests were made beginning February 5, 1945, and continuing for a period of 75 days, during the same time that the measurements were being made by Mr. Richards and while all the surface water of the creek was being diverted into the Murray Power line, and the creek bed below the Murray Dam to within 200 feet or more of the Des-

pain Spring area contained no flow of water. The pegs were so placed as to measure the depth of water appearing above the channel surface and were on both the north and south sides of the channel at various elevations. (R. 118) Three pegs were not in the stream channel but were in the channel of springs that issued from the bank. They are near the upper left corner of Plate XV and are numbered 18, 19 and 20. They represent water from Zone 2 as it emerged and drained freely into the creek channel and became a part of the flow of the creek. Exhibit E is an official survey by the City Engineer's office of Little Cottonwood Creek and precisely locates the various pegs and gives the actual elevations of the zero points that were established on a scale printed on each peg. Plate XV is an enlarged section of Exhibit E in the immediate vicinity of the wells. (R. 119) The water level could be precisely determined. The point where the water first emerged from the creek channel below the Murray Dam is shown on Exhibit E by a pencil X.

The Midvale pump ran continuously from February 6th and on February 20th the Sandy pump was also started. Daily measurements of the water levels at each of these measuring points were made. The results of the tests as to three selected pegs, 14, 17 and 19, and the sump are shown on Plates XVI, XVII, XVIII, XIX, respectively, on Exhibit D. Plate XVI shows that as soon as the Midvale pump was started the level of the water on pegs 14 and 17 and on the sump immediately dropped and then held at a fairly even level until February 20th,

when the Sandy pump was also started. Then the level immediately dropped again and continued dropping at the two pegs until March 3rd when both pumps were shut down for one day. The sump went dry. The water level at the two pegs was partially restored, but when the pumps resumed the next day the channel became dry and stayed dry until March 22nd when the pumps were permanently shut down. The sump stayed dry from February 23rd to March 22nd (R. 128) when the wells were both shut off. Then the water appeared again at the two pegs and in the sump. But it was April 16th before the level at peg 17 reached the same as February 5th. The water level at peg 14 and in the sump did not again reach the level at those places on February 5th by April 16th when the experiment had to end because surface water was flowing past the Murray Dam. As to the water level at peg 19, by one of the springs, the drop started February 7th and continued to drop for two days when it assumed an even level for a few days. Then it dropped percipitously and was dry when the Sandy pump was started on February 20th. It stayed dry until a day or so after the pumps were shut off in March when the water again barely appeared and so remained until the close of the test April 16th.

The test shows that the wells were drawing their water from Zone 3, the zone of saturation. That the water in the creek and the water underneath is all one single body is demonstrated by the immediate effect the withdrawal of water from Zone 3 has on the creek. (R. 122)

While the pumps are working they create a circular zone around them of unwatered gravel like a cone standing on end. The cone will enlarge until the water reaching its margin from the underflow and traveling down the slope of the margins, and to the screen, equals that which is lifted out. So there is as much water farther down west of the cone as before the pumping, since the water is free and not under pressure. The cones in this case extended across the canyon after the continued pumping. Down at the Wasatch fault there still remains complete saturation all the time of the pumping.

The water reappeared rapidly in the channel when the pumps stopped. But even after twenty days had elapsed the level in the channel had not recovered to the level at the beginning of the test as shown by peg 14, plate XVI. This shows that there is not sufficient water in the underflow from the zone of saturation to immediately restore the water.

After the pumps were shut down the unwatered cone caused by the pumping was being restored by the underflow from Zone 3 and by some additional water coming in from the margins of Zone 2, but before the restoration could be so completed the surface water came down from the Murray Dam and completed it. (R. 125) The first water that comes down the channel, which is the primary water and the most priceless, is the water which completes the restoration. So a good portion of the restoration is made up directly from the first or decreed primary water of 94 second feet. The flood waters come later in a channel already restored by the primary water

so the water withdrawn from the cones is not restored by the flood water but by primary water. The water taken by the wells can have no effect whatever upon the water supply going into the artesian basin below the fault zone, as there is complete saturation below or west of the cones of withdrawal created by the wells. To affect the amount of water passing the Wasatch fault, and going underground to build up and recharge the artesian basin, those cones would have to extend all the way down the canyon to the fault zone because the only unwatering is within the circle of influence or zone of withdrawal. Because of the physical conditions of the creek the only way water can be removed from underneath this zone of saturation by means of wells and have it restored is by primary water that comes down the canyon. (R. 126)

Exhibit F gives a further illustration of the test. It shows each peg in a vertical blue column; the exact elevation of the water surface at the top of each column at the beginning of the test and the depth of the water in hundredths of a foot at each peg. Peg 1 in the upper right corner has an elevation of 5327.58 at the water surface and the water a depth of .45 of a foot, peg 2, at an elevation of 5327.45 and a water depth of .60 of a foot, and so on down to peg 17. The colored columns along the bottom of the Exhibit give the following information as to water conditions at each peg:

The minutes which elapsed before the effect of the pumping of the wells was measurable. This is the left (brown) column. Next is the red column which shows the number of days which elapsed before the water com-

pletely disappeared at each peg. The next, green, column shows the days which elapsed after the wells were shut off before water reappeared at each peg. The last, purple, column shows the number of days before there was a complete recovery of the water level at each peg. The water level at pegs 7, 8 and 10, never did reach its original level on February 6th, in the 28 days after the wells were shut down and before the surface water came down the creek channel past the Murray Dam. (R. 129-134)

Exhibit G shows the original depth of the water at the various pegs when the test began February 6th and the extent to which that height was again reached by the time the test ended April 16th. That depth was never reached again at pegs 7, 8, 10 and 14, nor at the sump.

Dr. Marsell concludes that there is no unappropriated water in Little Cottonwood Creek from the Wasatch fault eastward to its head waters, because withdrawal of water by the wells is replaced by the first, or primary, water that comes down the creek from the Murray Dam, which is decreed water, and which is not water that would normally go into the artesian basin or some other place. (R. 134)

That the results of the test cannot be explained away on the theory of seasonal fluctuations is attested to by both Dr. Marsell (R. 139, 155, 159) and Mr. Ward (R. 207). The seasonal fluctuation would occur in Zone 2 and not in Zone 3 where the channel always has water in it. Ward testified the seasonal decline stops about the first of March and the increase then begins, so the test

covered the end of the decline period and the first of the increased period.

Dr. Marsell explained, in answer to questions asked by each of the three counsel for the defendants, on cross examination, that there could be no effect on, or diminishing of, the water going through the Wasatch fault into the artesian basin below by the pumping of the wells, so that the defendants were not diverting water by their wells which would otherwise have disappeared into that basin. He explained that as there is water in the creek channel the whole year round the underground must be thoroughly saturated to produce such surface water. So the amount of water being discharged across the fault underground remains the same the whole year round. (R. 161, 182) There would be no effect on the water crossing the fault zone underground because of the absence of water in the creek channel below the Murray diversion dam as long as the underflow is completely saturated. (R. 182)

It would be impossible for the withdrawal of water by the wells to diminish the quantity of water in the underflow at Beaver Pond Springs or the fault zone because you cannot prevent restoration of the water so withdrawn before such effect would be transferred that distance, more than a mile. The cones of unwatered gravel at the wells are refilled from the underflow and by surface water passing the Murray Dam before the effect of withdrawal by the pumps is transmitted that far. (R. 162) The effect of the pumping is not widespread enough. (R. 191) The underflow only travels two

or three feet a day and there is complete saturation from the outer edges of the unwatered zone at the wells clear to the fault which would be unaffected by the withdrawal. There could be no reduction in the amount of water at the fault, unless the water from the wells was never restored. (R. 150) So the additional water obtained by pumping, as testified to by Mr. Richards, is not water that normally would flow through the fault. The water comes back down the creek in the Spring before that withdrawn would have reached the fault. The .6 second foot additional water developed by the pumps would, if not pumped, become a part of the surface stream and underflow. (R. 141) The water that fills the unwatered cones created by the wells would otherwise go down stream as a part of the surface flow of Little Cottonwood Creek. (R. 166)

That the normal runoff in March and April did not return the water taken out by the pumps is shown by the effect on the springs at peg 19, Plate XIX, Exhibit D. Those springs depend entirely on what would be the melting period to restore them. They were drawn down, when the pumps operated, then made a partial recovery when the pumps stopped but were never restored and showed no increase from the normal runoff. They would not be restored until the next year's precipitation came. (R. 183)

STATEMENT OF POINTS

POINT I.

THE RIGHT TO ALL THE WATERS OF LITTLE COTTONWOOD CREEK HAVE BEEN ADJUDICATED AND

THERE IS NO UNAPPROPRIATED WATER IN THE SOURCES THAT SUPPLY SAID CREEK.

POINT II.

ALL THE WATER EXISTING IN THE ENTIRE WATERSHED, SURFACE AND SUBSURFACE, TO ITS UTTERMOST CONFINES, AND NOT MERELY THE SURFACE STREAM, IS THE SOURCE SUPPLYING LITTLE COTTONWOOD CREEK AND IS APPROPRIATED.

POINT III.

SINCE DEFENDANTS' WELLS ARE ADJACENT TO THE CREEK THE BURDEN OF PROOF WAS UPON DEFENDANTS TO SHOW THAT THE WATER TO BE APPROPRIATED UNDER THEIR APPLICATION WOULD BE DEVELOPED WATER, WATER FROM A NEW SOURCE.

POINT IV.

THE EVIDENCE WITHOUT DISPUTE SHOWS THAT THE ONLY WATER THAT HAS BEEN OR CAN BE PUMPED FROM DEFENDANTS' WELLS MUST COME FROM SOURCES ALREADY FULLY APPROPRIATED.

POINT V.

A SHOWING OF A MERE IMPRACTICAL THEORETICAL POSSIBILITY OF OBTAINING AN ADDITIONAL QUANTITY OF WATER IS INSUFFICIENT TO WARRANT THE GRANTING OF AN APPLICATION TO APPROPRIATE WATER FROM SOURCES ALREADY FULLY APPROPRIATED.

ARGUMENT

POINT I.

THE RIGHT TO ALL THE WATERS OF LITTLE COTTONWOOD CREEK HAVE BEEN ADJUDICATED AND

THERE IS NO UNAPPROPRIATED WATER IN THE SOURCES THAT SUPPLY SAID CREEK.

The importance of this case is in no way reflected by the amount of water involved. Stated simply, it is a case where wells are dug beside a natural stream, whose waters for more than 40 years have been fully appropriated, and extracting water from the underflow of the stream. To grant this application would open the door to like diversions from the numerous canyon streams all along the Wasatch Fault, which extends from Colliston to Nephi. The result would be endless litigation based upon mere impractical theory and running counter to well settled legal and geological principles.

There is no dispute in the evidence that the waters of Little Cottonwood Creek have been fully appropriated and so established by judicial decree entered in 1910. There is no dispute but that the water sources constituting that stream remain today identically the same as when the decree of court was entered. No new sources of supply have appeared. The decree of court, referred to as the Morse Decree, on this point provides as follows:

> Paragraph 35. "No one is entitled to any of the water of Little Cottonwood except as he may be an owner in some of the ditches to which water is distributed, and they only as such ditch is entitled to water as herein found."
>
> Paragraph 42. "All persons who have any interest in the water of Little Cottonwood have been duly served and have either pleaded herein or the time to plead has elapsed; and no one has any right to such water except as specified in this decree."

The defendants themselves admitted before the State Engineer, in their answer to the protest of plaintiff Little Cottonwood Water Company, that all water of Little Cottonwood Creek is fully appropriated. They state in said answer, in evidence as Exhibit H, as follows:

> "That applicants recognize in said application that all of the natural flow of Litttle Cottonwood Creek is appropriated and that the rights decreed cannot be adversely affected by this application."

POINT II.

ALL THE WATER EXISTING IN THE ENTIRE WATERSHED, SURFACE AND SUBSURFACE, TO ITS UTTERMOST CONFINES, AND NOT MERELY THE SURFACE STREAM, IS THE SOURCE SUPPLYING LITTLE COTTONWOOD CREEK AND IS APPROPRIATED.

Since it is admitted that all of the natural flow of the creek is appropriated, it is essential to know what is the natural flow. Certainly the evidence fails to disclose any flow brought about by unnatural means. At the trial defendants argued the natural flow of the creek is the water that flows down the surface of the channel as a stream and that alone has been appropriated. This, of course, assumes a wholly unnatural and fallacious condition, namely, that the surface flow of the creek is one thing and the underflow that sustains the surface flow and makes it possible, is another thing. The surface flow is not suspended by itself, unconnected with

or unsupported by the water underground. It was demonstrated by Dr. Marsell, and the testimony of Mr. Ward is in complete agreement, that the underground water must fill to saturation all the unconsolidated materials beneath the channel of the stream before any water will appear in the surface of the channel. If water is drawn from underneath the stream, to use Ward's language, water from the stream must go to fill the void so made. The water underground is at all times in free communication with the surface water, and is the foundation upon which the surface water rests. Take away the supporting underflow and the surface water disappears into the underground. An interference with the underground support is a direct interference with the surface flow. These are simple demonstrated geological facts about which there is no dispute in the record and about which there could be no dispute. The law has recognized these geological facts or principles.

Hutchins, Selected Problems in the Law of Water Rights in the West, says: (Page 7)

> "The term 'watercourse' is in common use. It means a definite stream in a definite channel with a definite source or sources of supply and *includes the underflow.*"

In his testimony Dr. Marsell referred to this definition with approval.

At page 8 the same author says:

> "It follows that the flow in a water course does not mean solely the visible surface stream,

> but also includes the underflow as well, where there is an underflow. The underflow is as much a part of the water course as is the surface flow; for if the waters within this subterranean area are withdrawn the surface waters sink into the void to take their places. The legal implications of this are widely recognized in the court decisions. While the definitions of a surface water course seldom refer to associated waters in the ground, nevertheless, the underflow is a physical part of the whole and the courts have held it to be a component part."

He cites *Kansas v. Colorado,* 206 US 46, where the supreme court held that necessarily, unless the bed of a stream is on solid rock, there is earth through which water percolates in contact with the stream, both directly below the channel and on each side of it. In other words, it was all one stream.

The author continues, page 152:

> "The underflow of a stream is a part of the stream and the same rules of law apply to the surface and sub-surface portions. Apparently all of the decisions involving the underflow of streams have so held directly or by necessary implication. The position thus taken is that the underflow or sub-flow of a surface stream through the soil adjacent to the stream bed is necessary to the support of the surface stream and is a part of its supply, and is therefore governed by the same rules."

This court has recognized the principles above stated. In *Rasmussen v. Moroni Irr. Co.,* 56 Utah 140, 189 P. 572, the court says:

"The principle involved here is precisely the same as though the appellant were seeking to appropriate a cubic foot of water from either Cottonwood Creek or Birch creek, both of which, it is conceded, are tributaries of Sanpitch river and empty into it at points above respondents' diverting dam. If he attempted to do that, everyone, we think, would pronounce his act as unjustified by the laws of this state. In principle what he is attempting to do, however, in no way differs from an attempt to divert water from those streams directly. * * * Indeed, the water which flows in the middle and lower reaches of our mountain streams from which the water is diverted for irrigation and domestic uses after the high-water season is passed, and when we have arrived at what is called the low-water stage, nearly all reaches those streams through underground and invisible channels. The porous and gravelly nature of the soil of our mountains, foothills, and even the higher bench lands, tends to freely absorb the water that comes from the melting snows in the spring and thus seepage and percolating waters form a not inconsiderable part of the supply of all of our irrigating streams. When therefore all of the water is appropriated by a prior appropriator which flows in a given stream, such appropriator acquires a right to all of the sources of supply of such stream whether visible or invisible, or whether underneath or on the surface."

Richlands Inv. Co. v. Westview Inv. Co., 96 Utah 403, 80 P. 2nd 458, the court says:

"The entire watershed to its uttermost confines, covering thousands of square miles, out to the crest of the divides which separate it from ad-

> jacent watersheds, is the generating source from which the water of a river comes or accumulates in its channel. Rains and snows falling on this entire vast area sink into the soil and find their way by surface or underground flow or percolation through the sloping strata down to the central channel. Any appropriator of water from the central channel is entitled to rely and depend upon all the sources which feed the main steam above his own diversion point, clear back to the farthest limits of the watershed."

Under the Morse decree all of the water which is the source of supply to Little Cottonwood Creek has been appropriated and must be distributed in accordance with the terms of that decree. The defendants own a part of that decreed water. The fact that they have been permitted to take their water from underground so as to obtain clear water for culinary purposes should not give legal sanction to their taking from the same source additional water under the pretext of having increased the yield. This phase will receive more detailed attention later in the brief.

POINT III.

SINCE DEFENDANTS' WELLS ARE ADJACENT TO THE CREEK THE BURDEN OF PROOF WAS UPON DEFENDANTS TO SHOW THAT THE WATER TO BE APPROPRIATED UNDER THEIR APPLICATION WOULD BE DEVELOPED WATER, WATER FROM A NEW SOURCE.

The wells from which defendants intend to obtain the water to be appropriated were driven adjacent to the Little Cottonwood Creek. The testimony without dispute is that the wells were driven in unconsolidated

glacial material which was fully saturated from the top to the bottom of the wells. It is also without dispute that the water so held by these materials is in direct contact and communication with the surface flow of the creek. Since all of the waters of the creek, including all its sources of supply and support, are fully appropriated, the defendants had the burden of showing the water to be appropriated was developed water, was new water. Theirs is not an application to effect a saving of water by a new system of diversion—it is to appropriate new water from a newly developed source of supply. As to their having the burden of proof in such a situation we refer to the following decisions of this court.

Whitmore v. Utah Fuel Co., 26 Utah 488, 73 P. 764. The plaintiff had appropriated the waters of certain springs of Grassy Trail Creek. The defendant dug a shaft under the channel of said creek and under the springs in the channel into which water collected from the sides, floor and roof. The spring became dry. The trial court found that the water so collected was percolating without any defined channel in courses unascertainable and did not affect the springs. The Supreme Court reversed the decision, saying:

> "The fact that the water from the springs in the channel immediately above this drift ceased flowing about the time the channel of the creek was intersected by the drift, is at least, prima facie proof that the drying of the springs was due to the tapping by the defendant of the underground flow as above stated.

> "That known underground streams of water flowing in well-defined channels, such as the one under consideration, is shown to be, are subject to appropriation, and that rights acquired in them by appropriation can not be diverted by the wrongful act of another is so well settled that we deem it unnecessary to enter upon a discussion of the question."

In commenting on the above case the author heretofore quoted, Mr. Hutchins, says, page 153:

> "In an interesting Utah case springs in a canyon were a part of the supply of an appropriated stream. It was held that a defined underground stream ran down the canyon, and a shaft under the spring substantially diminished the flow which was held to be an interference with the flow of the underground stream connected with the springs."

Silver King Con. Min. Co. v. Sutton, 85 Utah 297, 39 P. 2nd 682.

> "It is also well settled that where one claims he has developed water by means of tunnels or other underground means in close proximity to the source of a stream or spring, the waters of which have been previously appropriated by others, he is charged with the burden of proving that his claimed developed water does not interfere with the waters theretofore appropriated; that the burden is on such person to show by satisfactory proof that the water so intercepted and to be diverted, is in fact 'developed water' which would not, but for such interception, have sup-

plied the source of such prior appropriators. The rule is stated in Mountain Lake Mining Co. v. Midway Irrigation Co., 47 Utah 346, 149 P. 929, as follows:

> "'It is a well recognized rule of law in this arid region that where, as in the case at bar, a party goes upon a stream, the waters of which have been appropriated and put to a beneficial use by others, and drives a tunnel into the mountain or water shed drained by the stream, and immediately under or in close proximity to the stream and collects water which he claims to be developed water, he must make satisfactory proof that such water is in fact developed water. In such a case it is immaterial whether the water, when encountered, is flowing in well-defined subterranean channels or is percolating through the soil, gravel, and the fissures and crevices of the rock. In either event, the presumption is, until overcome by satisfactory proof, that the water is tributary to the main stream and the right to its use is vested in the prior appropriators of the stream.'"

Hutchins, in his work above referred to, page 374, says:

> "The burden rests upon one who claims to have salvaged water to show by competent evidence that the waters salvaged by him had not theretofore been appropriated or used by others with prior rights. This principle is well established, particularly where the development is in close proximity to the supply of streams upon which claims to the use of water exist."

POINT IV.

THE EVIDENCE WITHOUT DISPUTE SHOWS THAT THE ONLY WATER THAT HAS BEEN OR CAN BE PUMPED FROM DEFENDANTS' WELLS MUST COME FROM SOURCES ALREADY FULLY APPROPRIATED.

On the point here involved the trial Court simply found as follows:

> "4. That there is reasonable cause to believe that there is unappropriated water at the proposed source during the following periods:
>
> "1. When it is intended by Salt Lake City, Little Cottonwood Water Company and others that the entire surface flow of Little Cottonwood Creek be diverted at the Murray Power Plant Diversion Dam through the Murray City Power Plant Pipe Line, and, when as a result of such diversion, there is no water flowing in the creek at the head of the South Despain Ditch.
>
> "2. When the flow of Little Cottonwood Creek is in excess of the rights of prior appropriators."

He concludes as a matter of law that there is unappropriated water that can be obtained without impairing existing rights and that the proposed plan of appropriation is physically and economically feasible. We submit that the record does not support either the Findings of Fact or Conclusions of Law above referred to and that it was error to so find and conclude.

How have defendants borne the burden of proof imposed upon them by the authorities just cited? How have they overcome the presumption that the water claimed

by them is tributary to the decreed water of the creek? Their evidence shows they conducted a quantity experiment at a time when the surface flow of the creek in the vicinity of their wells was low. By pumping water from both wells they were able to produce 0.6 second foot more water in the aggregate than was naturally produced without the aid of the pumps. That is their entire evidence. No experiment would be necessary to come to such a conclusion. It was freely admitted that more water can be produced by drilling wells than would be naturally produced. No consideration whatever was given to the source of this additional water although it was freely admitted it came from the same source as the surface flow and, but for the pumping, the water would have flown in the creek channel down to the head of the Sandy ditch, a distance of more than 6400 feet downstream from the nearest well. Likewise they paid no attention to the demonstrated fact that the additional water taken out by the wells had to be replaced before there could be water flowing again in the creek.

Without any showing of the source of the additional water created by the pumping, and that such source had no connection with the water composing the creek water, surface and subsurface, there was a complete failure to prove they had developed water not otherwise appropriated. In the language of Dr. Marsell, they simply showed they were borrowing or taking water from the underground without any regard to paying back or replacing it. They made no measurements to show the quantity

of water that had to be returned to repay or replace that taken out.

It was admitted by all parties that the pumping adversely affected the Granite Spring, which emerges more than 2500 feet below the location of the nearest well. A judgment was rendered in a separate action requiring defendants to supply a minimum of 58 gallons per minute to the owner of said spring..

It was also demonstrated that the flow into the North Despain ditch was adversely affected by their pumping, and that that flow is a part of the decreed waters of Little Cottonwood Creek. It is referred to in the Morse decree, par. 28, p. 24 of Exhibit 3.

It was demonstrated both by Mr. Richards and Dr. Marsell that the pumping had an immediate and adverse effect upon the flow of the surface water of the creek. The court commissioner testified that at all times the surface flow of the creek was measured and divided at the head of the Sandy ditch, which is located a long distance below defendants' pumps; that the water so measured and diverted was a part of the decreed water rights in the creek. The pumping adversely affected the water supply reaching that diversion point.

The interference test conducted by Dr. Marsell, the results of which are graphically shown on Exhibits E, F, and G, shows that the pumping immediately and directly interferred with and adversely affected the flow of the surface water in the channel from a distance a couple of hundred feet upstream from the upper well for a distance of several hundred feet below or downstream, in fact

through the whole length of the Despain Spring area, 1300 feet. It also showed that springs feeding the creek downstream from the wells were also adversely affected. There was a direct and measurable decrease in the flow of the creek when the pumps were running. It further showed that at some points there was not a complete recovery from this adverse interference even after the wells had been shut down for about 28 days.

The only manner in which defendants tried to justify this interference, or to legitimately classify the 0.6 sec. ft. claimed to have been secured as developed water, was to assume, without any proof whatever, that this additional water would have leaked away at the Wasatch Fault zone and found its way into the valley underground artesian basis had it not been pumped out by the defendants. Mr. Ward, who advanced this idea, expressly disclaimed being a geologist. Neither he nor any one on behalf of defendants produced any data to show the nature of the movement of underground water in this area, or how taking water out at the wells prevented that water from flowing through the fault two miles or so downstream. Nor did defendants show how the surface flow would be supported in its course down the creek to the North Despain ditch, the Sandy ditch, and beyond to the other ditches, when part of its support was being withdrawn by the pumping of the wells.

That Mr. Ward's assumption was wholly and completely at variance with the geological facts applicable to this area, was demonstrated by Dr. Marsell. We have given this testimony in our statement of facts. May we

repeat here a short summarization. The subsurface material is in complete saturation from the fault on up past the wells. It had to be for any water to flow in the creek channel. The wells did not draw out water presently at the fault line. Each well drew out water in a cone, in the center of which was the well. The upper and outer edges of these cones extended north and south across the canyon, a distance of 300 feet or so. They extended up and down stream so they intersected each other but did not extend over a few hundred feet. The vertex of these cones would be the bottom of the wells. Below or downstream from the outer edges of these cones the subsurface materials remained saturated as before, the pumping having no effect to diminish the underground water beyond the cones of influence created by the wells. Those cones, and those alone, became the unwatered areas. The underground water percolates or moves down stream slowly, two or three feet a day. The water from the underflow above and around the wells would supply the water drawn by the pumps, not the underground water down by or even near the fault zone. Had these cones of influence extended westward to the fault zone the Beaver Pond springs would have been affected, but it was conceded by all that the pumping did not affect these springs. The one well had been pumping for 15 months when the defendants' test began in November, 1944. Both run from November 21 to December 11. They likewise ran from February 6th to March 20th, when they were shut down. By April 16 the water from the water shed had reached the creek in such volume that the Mur-

ray power line would not contain it all and water overflowed the Murray dam and reached the area here involved down the surface of the channel. This immediately filled all voids made by the pumping and restored the water taken out. This occurred, and would continue to occur, as explained by Dr. Marsell, long before any effect of the pumping could be transmitted so as to lessen the amount of water going out through the fault into the underground basin below. The amount of water entering the basin at the fault would not vary at any time since the subsurface above is always completely saturated. Dr. Marsell reiterated these facts again and again in answer to questions by each of the defendants' attorneys and by the court. The whole answer, therefore, to the unsupported assumption of the defendants that they are retrieving water that would otherwise go into the valley artesian basin, is that the water withdrawn from the underflow by the wells is replaced and restored fully by the surface water coming back down the creek channel from the spring run off long before the effect of the withdrawal can be transmitted to the fault zone. Furthermore, the replacement is not flood water. It is a part of the primary water, the most precious water, the water having the highest degree of priority.

Another fallacy in Mr. Ward's assumption, and so shown by Dr. Marsell, is that the water taken by the wells is in effect water of the artesian basin, and since that basin is not yet fully appropriated, the application should be granted. The water in the underground at the wells is a part of Little Cottonwood creek watercourse. It per-

forms its function there as carrier water, as underflow. It does not become artesian water until it reaches the basin. A moment's reflection is all that is necessary to show the far reaching disaster that would come from such a theory. You would have artesian filings up every creek that supplies in some way a lower artesian basin.

POINT V.

A SHOWING OF A MERE IMPRACTICAL THEORETICAL POSSIBILITY OF OBTAINING AN ADDITIONAL QUANTITY OF WATER IS INSUFFICIENT TO WARRANT THE GRANTING OF AN APPLICATION TO APPROPRIATE WATER FROM SOURCES ALREADY FULLY APPROPRIATED.

Notwithstanding the demonstrated fact that you cannot appropriate water at the site of defendants' wells under the theory that the water, if not diverted there, would go into the artesian basin, as hereinabove shown, the trial court, in its written memo decision, stated that he was "of the opinion that there is a reasonable probability that water is available at the pump locations and that such water as would eventually pass through the Wasatch fault is subject to appropriation." We have no doubt that if wells were dug at or immediately above the fault they could capture some water that had fully performed its service to prior appropriators up the creek and so could be taken without injury to anyone. But to say that such water can be taken at the wells flies in the teeth of all the geological and scientific facts developed by Dr. Marsell and in no wise refuted by anything in the

record. The court admits in its decision that the matter of removing such water at the wells presents a practical problem that is difficult of solution. He admits that water cannot be pumped from the underflow without direct and detrimental effect upon the surface flow.

The court further says:

> "Water pumped at such times is the equivalent, in quantity, of obtaining surface water for the latter cannot run without the support of the underground flow."

Therefore, the pumping must cease "in sufficient time to let the underflow refill the unwatered area before the surface flow becomes dependent on the underflow for its support." He concludes this notwithstanding the record is without dispute that there is always a surface flow in the creek above, opposite and below the wells, which flows to and is always distributed at the intake of the Sandy Ditch by the Court Commissioner. Mr. Richards, himself, testified the channel was never dry. There was always water passing the swinging bridge. The Trial Court then concludes:

> "It may well be that the quantity of water available to the defendants at the pump locations may be limited by the contribution of the Little Cottonwood water shed to the underflow between the Murray intake and the pumps."

And as to this we ask, who in the name of common sense and practical principles is capable of measuring such contribution?

There is not the slightest evidence that any one could determine when the pumps should be shut off before the surface flow passes the Murray Dam and in time for the underflow to refill the unwatered subsurface. How can this underflow be measured in quantity or in the time it would require to restore the water taken out by the pumps so as to have a resaturation before the spring runoff returns? To state the question is to make evident the utter impracticability of such a solution. Likewise there is not the slightest evidence that it would be possible to determine the amount of water contribution which the water shed would make between the Murray Dam and the wells. It might be expected that the water flows past the Murray Dam from sometime in April to sometime in November, a period of seven months in normal times. But the flow fluctuates from year to year. The precipitation varies. There is no way of measuring the underflow or determining the amount of water that would reach the unwatered area during any given period. It is apparent from the Court's decision that the pumping interferes with the flow of the creek water and interferes with the decreed rights to the water of the creek. Otherwise there would be no necessity to require a shut down of the wells in time to permit a restoration of the unwatered area by the underflow before the surface water returns to the channel past the Murray Dam. Whether as a practical matter there is any way of determining when the wells should be shut down under such conditions was apparently wholly immaterial to the court and was an element not to be considered in the determination of

the issues of this case. So we have the basis for the Trial Court's granting the application resting, and of necessity must rest, upon a mere possibility that the balance so defined may be achieved without the slightest evidence that such a result can be actually and practically attained.

The effect of such a decision could only be productive of endless and fruitless litigation. Surely the burden is on the applicant who seeks to appropriate water to show a reasonable probability that water is available in such a manner that the development can be carried out as a practical matter. In the absence of such proof prior appropriators should not be put to expense or harrassment protecting themselves from impractical schemes. Where, as here, the water taken is taken directly from a source of supply already appropriated, there must be more than an unsupported theoretical basis that there might be some water available. Furthermore, no application should be granted upon a record, not only devoid of proof of a practical means of consummating the appropriation, but itself disclosing that such consummation cannot under any principles be attained.

This aspect of the case presents, as we think, a most important legal proposition in the interpretation of our law governing the appropriation of water. Section 100-3-8, U. C. A. 1943, provides that it shall be the duty of the State Engineer to approve an application if:

> "(1) There is unappropriated water in the proposed source;

(2) The proposed use will not impair existing rights, or interfere with the more beneficial use of the water;

(3) The proposed plan is physically and economically feasible. * * *"

That there was an impairment of existing rights by the pumping at the wells, and that such impairment is present in any continued pumping, is undisputed. The defendants are forbidden to pump except at such times as such impairment is not present. So they are required to stop pumping at a time sufficiently in advance of the return of the surface flow over the Murray Dam to permit the underflow to restore the water taken and repair the impairment before its effect will be felt. But there is not the slightest evidence that this is physically or economically feasible or even possible. On the contrary, it is apparent from the record that such a delicate, not to say delightful, equilibrium is absolutely impossible of attainment.

So far as the right to pump when the flow of the creek exceeds the decreed rights, we submit that such pumping would have no practical benefits. In many seasons the flow never exceeds the decreed rights. When there is an excess it only lasts for two or three weeks at the most.

CONCLUSION

It is apparent from the evidence of the defendants that the amount of additional water, which they claim they developed, happened to be the amount which the

size and capacity of their particular pumps were capable of diverting. Had they had pumps of larger capacity they would have unwatered a larger area of the underground supply. So the fact that they were able to obtain .6 second foot more water than nature alone would have produced, assuming they so demonstrated, was the fortuitous result solely of their having selected the particular pump capacity they did.

The record is without dispute that they took water from the source supplying water rights decreed and fixed by Court for more than forty years. They are interfering with those rights. The water they take is not new water, or water developed from a new source, or water that can be taken without the impairment of existing rights. Whatever they take out is restored by decreed water, water carrying the first or primary rights in the flow of the creek. They do not retrieve water that otherwise would go out into the valley artesian basin. They cannot operate their pumps without interfering with existing rights. There is no evidence to sustain a finding that there is unappropriated water available under a system of diversion that will not impair existing rights and one that is physically and economically feasible.

The judgment should be reversed and the application be denied.

Respectfully submitted,

E. R. CHRISTENSEN,
City Attorney

HOMER HOLMGREN,
A. PRATT KESLER,
Assistant City Attorneys
Attorneys for Appellants.